

# PATENT ABSTRACTS OF JAPAN

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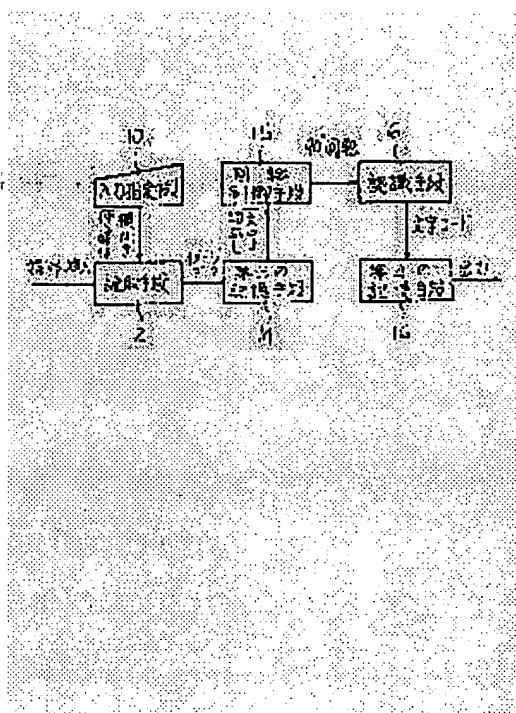
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## (54) CHARACTER RECOGNIZING DEVICE

### (57)Abstract:

**PURPOSE:** To increase the number of classifications of layout of vertical/ horizontal wiring of documents by providing a rotation control means which rotates each character, which is segmented from a stored character string, at 90°.

**CONSTITUTION:** When it is indicated by an input indicating means 10 that the direction of characters on an inserted medium is horizontal, image data of each character in each character row read by a reading means 2 is stored in a storage means 14. Each character segmented from data in the storage means 14 is rotated at 90° in a prescribed direction by a rotation control means 15 and is recognized by a recognizing means 6. The recognized character code is stored in a storage means 16. The character code stored in the storage means 16 is connected to a character code string corresponding to adjacent characters in the character row successively from the character code string corresponding to the terminal character of the character row and is outputted. Thus, characters are read through the direction of characters is horizontal.



## LEGAL STATUS

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L4: Entry 1 of 1

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## ABSTRACT:

PURPOSE: To automatically discriminate the kind of font at every area when two kinds of character area are mixed in the same document picture by obtaining the frequency distribution as to the position of a circumscribing rectangle of a black picture element continuous area at every character string.

CONSTITUTION: For a document picture 11 inputted to a frame memory, the circumscribing rectangle 12 of black picture element continuous components and the circumscribing rectangle 13 of character string 13 are obtained. From the two kinds of circumscribing rectangles 12 and 13 thus obtained out of the input picture 11, the kind of font 14 constituting each character string is discriminated. That is, the frequency distribution as to the position of the circumscribing rectangle of the plural black picture element continuous components that are included in the said rectangle 13, is obtained at every circumscribing rectangle 13 of character string. This frequency distribution varies depending on whether the character string is a Japanese sentence or an English sentence. Therefore, from the distribution frequency, the kind of character can be discriminated. In such a way, in case where two kinds of character area are mixed in one document picture, the kinds of character are automatically discriminated at every area.

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